

#### ABSTRACT OF THE DISCLOSURE

A method of fabricating a single crystal thin film includes the steps of: forming a non-single crystal thin film on an insulating base; subjecting the non-single crystal thin film to a first heat-treatment, thereby forming a polycrystalline thin film in which polycrystalline grains are aligned in an approximately regular pattern; and subjecting the polycrystalline thin film to a second heat-treatment, thereby forming a single crystal thin film in which the polycrystalline grains are bonded to each other. In this method, either the first heat-treatment or the second heat-treatment may be performed by irradiation of laser beams, preferably, emitted from an excimer laser. A single crystal thin film formed by this fabrication method has a performance very higher than a related art polycrystalline thin film and is suitable for fabricating a device having stable characteristics. The single crystal thin film can be fabricated for a short-time by using laser irradiation as the heat-treatments.